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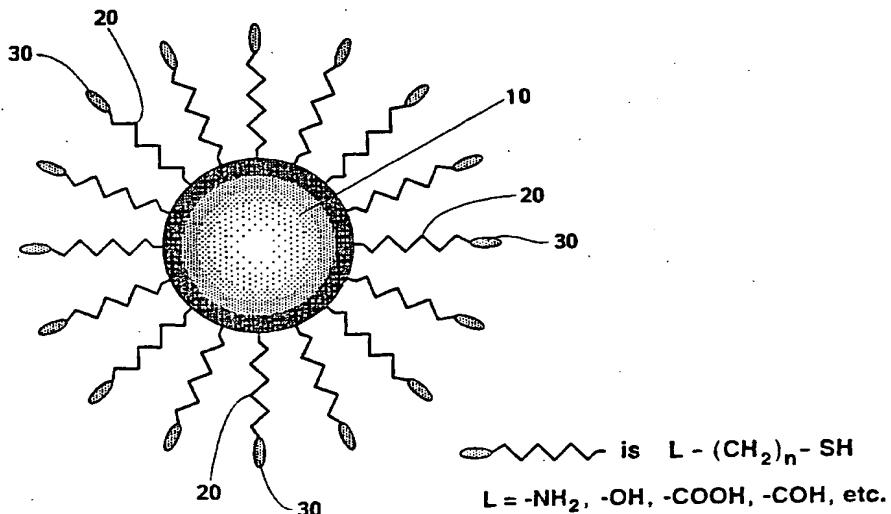
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(54) Title: BIOCONJUGATES OF NANOPARTICLES AS RADIOPHARMACEUTICALS



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(57) Abstract: A bioconjugate including a nanoparticle covalently linked to a biological vector molecule. The nanoparticle is a generally radioactive metal ion and most typically a metal oxide. The biological vector molecule is typically a monoclonal antibody or fragment of a monoclonal antibody or a peptide having a known affinity to cancer cells. One or more additional, different biological moieties may be covalently linked to the nanoparticle in addition to the biological moieties may be covalently linked to the nanoparticle. The bioconjugate of the present invention has utility as an effective radiopharmaceutical to deliver a radiolabel in tumor treatment.



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INTERNATIONAL SEARCH REPORT

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PCT/US 01/17658

A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, BIOSIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	WO 01 33223 A (BIO MERIEUX ;BOSC ERIC (FR); BIBETTE JEROME (FR); CENTRE NAT RECH) 10 May 2001 (2001-05-10) see page 5, lines 17-20, page 7, line 11-20, claims 3 and 11	1,3,4, 7-10,14, 15
P, X	WO 01 19405 A (KLICHE KAY OLIVER ;TRIDELTA BIO MEDICAL GMBH (DE); BUSKE NORBERT () 22 March 2001 (2001-03-22) see abstract, page 4, line 37 to page 5, line 9, page 5, line 11 and lines 24-29, page 9, line 16 to page 13, line 2; examples; claims 1-3	1,3,4, 7-10,14, 15



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Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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X	SCHAERTL S ET AL: "A NOVEL AND ROBUST HOMOGENEOUS FLUORESCENCE-BASED ASSAY USING NANOPARTICLES FOR PHARMACEUTICAL SCREENING AND DIAGNOSTICS" JOURNAL OF BIOMOLECULAR SCREENING, LARCHMONT, NY, US, vol. 5, no. 4, 2000, pages 227-237, XP001006052 ISSN: 1087-0571 abstract ----	1,3,4, 7-10,14, 15
X	SHIKU H ET AL: "DEVELOPMENT OF A CANCER VACCINE: PEPTIDES, PROTEINS AND DNA" CANCER CHEMOTHERAPY AND PHARMACOLOGY, SPRINGER VERLAG, BERLIN, DE, vol. SUPPL, no. 46, 2000, pages S77-S82, XP002908597 ISSN: 0344-5704 see abstract, right hand column, lines 9-12; page 578, right hand column 3. paragraph ----	1,3,4, 7-10,14, 15
X	EP 0 516 252 A (DIAGNOSTIKFORSCHUNG INST) 2 December 1992 (1992-12-02) see page 6, line 31 to page line 24 and claim 10 ----	1,3,4, 7-10,15
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Information on patent family members

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